

Unit 2



Skincare Services

INTRODUCTION

A Beauty Therapist is a professionally trained individual, who specialises in beauty and wellness services, and offers services from head to toe in order to improve a person's overall appearance. The therapist performs skincare, make-up, depilation, manicure and pedicure services.

The person must have knowledge of beauty and wellness, safety and hygiene standards to be followed in a salon, beauty products, and a range of beauty services that are available in market.

This Unit gives an insight into anatomy and physiology of the skin and skincare services that are performed by the Beauty Therapist, such as cleansing, application of toners and skin fresheners, application of moisturisers, and bleaching.

In order to provide effective skincare services, the person must have knowledge about the basic anatomy and physiology of the skin. The students will also learn to identify the skin type. A make-up must be suggested based on a client's skin type. The students must also understand the effects of voluntary movements of face, neck and shoulder muscles.

Do you know?

Skin is the largest organ of the human body. On an average, adults have around 8 pounds (3.6 kg) and 22 sq ft of skin.

SESSION 1: ANATOMY AND PHYSIOLOGY OF THE SKIN

The Beauty Therapist needs to be aware of the basic anatomy and physiology of the skin in order to provide effective skincare services. 'Skin' is the protective or outer covering of the body. It is a waterproof, insulating shield, guarding the body against extremes of temperature, sunlight and harmful chemicals.

Skin: The skin acts as a protective shield for the body. The Beauty Therapist needs to be aware of the basic anatomy and physiology of the skin in order to provide effective skincare services to clients.

Anatomy: It refers to the structure of the human body and the relationship of different body parts with each other.

Physiology: It is the study of the function of different body parts and the body as a whole.

Layers of the skin

The skin consists of three layers.

- Epidermis
- Dermis
- Hypodermis or subcutis

Epidermis

Epidermis is the outermost or epithelial layer of the skin. It is a waterproof protective layer that covers the body and serves as a barrier to infections. It prevents loss of water from the body. The epidermis also prevents the entry of foreign bodies into the body. It does not have direct blood supply as it contains no blood vessels, and all nutrients are transferred to it from the dermis. The epidermis has three main type of cells. They are:

- Keratinocytes (skin cells)
- Melanocytes (pigment producing cells)
- Langerhans (immune cells)

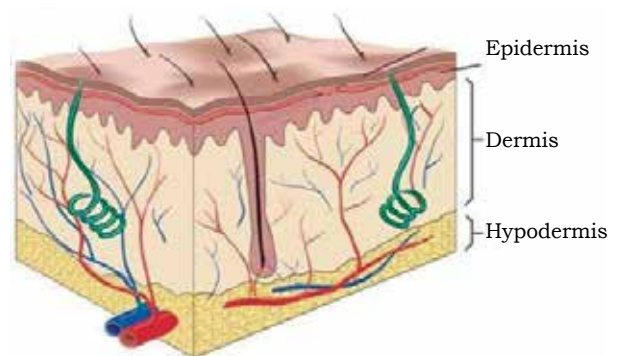


Fig. 2.1: Layers of the skin

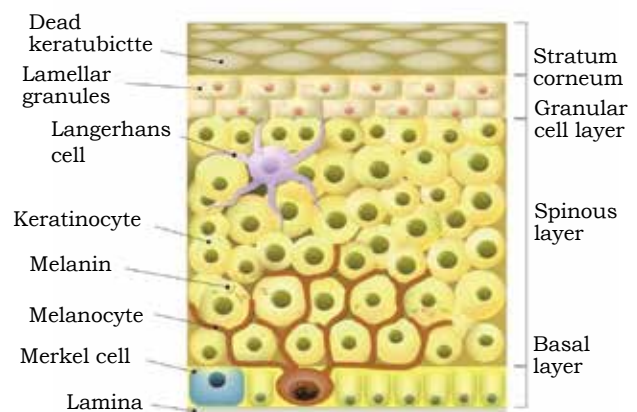
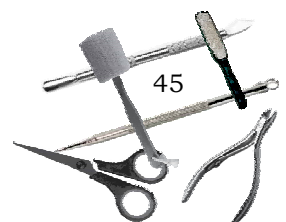


Fig. 2.2: Uppermost layer of skin — epidermis



Keratinocytes

Keratinocytes become more mature or differentiated and accumulate keratin as they move outwards. They eventually fall or rub off. A specialised structure lies between the epidermis and dermis. It includes various protein structures, linking the basal layer of keratinocytes to the basement membrane (hemidesmosomes) and the basement membrane to the underlying dermis (anchoring fibrils). The basement membrane ensures that the epidermis sticks firmly to the underlying dermis.

Melanocytes

These are found in the basal layer of the epidermis. These cells produce a black-coloured pigment called 'melanin', which is responsible for skin pigmentation. Melanin is packaged into small parcels called 'melanosomes', which are then transferred to keratinocytes. Melanin protects the skin against ultraviolet rays.

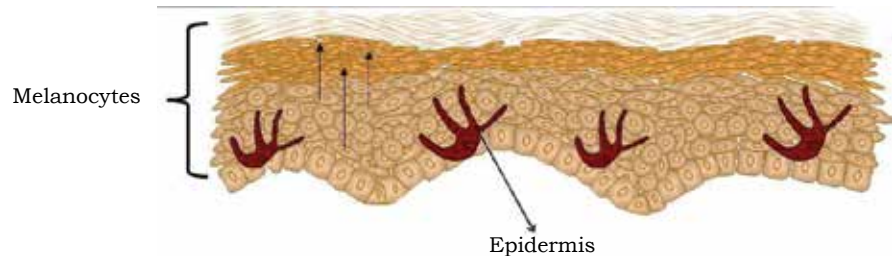


Fig. 2.3: Melanocytes in epidermis

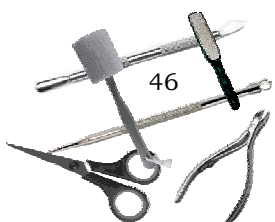
Langerhans

These are the immune cells found in the epidermis. These are responsible for helping the body identify 'allergens' (material foreign to the body).

Other type of cells found in epidermis

Merkel cells

These are found in the basal layer of the epidermis. Special immune-histochemical stains are needed to visualise merkel cells, which are also known as 'merkel-ranvier cells' or 'tactile epithelial cells'. These are oval-shaped mechanoreceptors necessary for light touch sensation and found in the skin of vertebrates. However, their exact role and function is not understood.



Dermis

It is the fibrous connective tissue or supportive layer of the skin. It lies below the epidermis. It contains blood capillaries, nerve endings, sweat glands, hair follicles, and other structures. Dermis consists of collagen and elastin fibre.

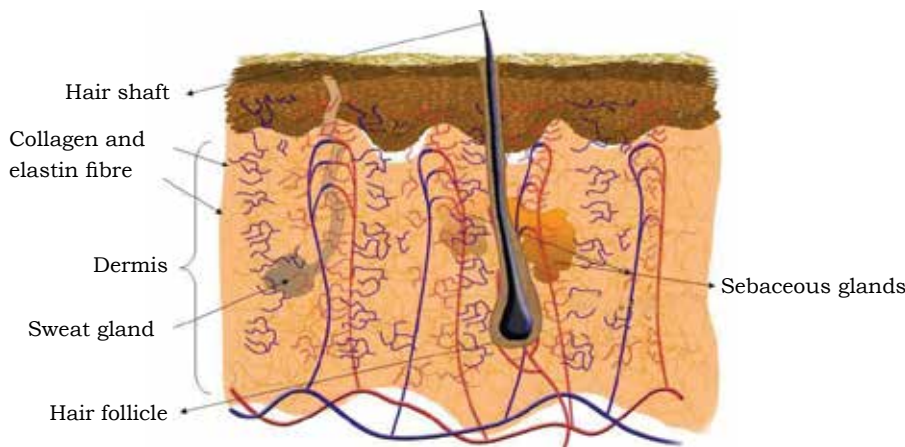


Fig. 2.4: Structure of the dermis

Collagen fibre

This type of fibre predominates the dermis. Collagen fibre has enormous tensile strength and provides the skin with strength and thickness. Collagen bundles are small in the upper or papillary dermis and form thicker bundles in deeper or reticular dermis.

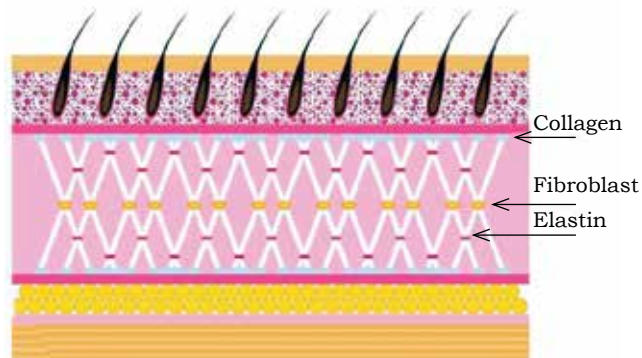
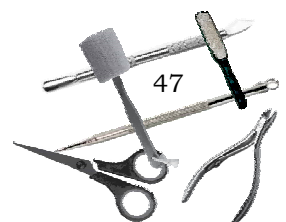


Fig. 2.5: Collagen fibre of the skin

Elastin fibre

It provides elasticity and pliability to the skin.

Collagen and elastin fibre are bound together by mucopolysaccharide gel, in which nutrients and wastes can diffuse into and form other tissue components. The dermis also contains nerves, blood vessels, epidermal adnexal structures, tissues and cells.



Hypodermis or subcutis

It is a layer that lies below the dermis. It is also called 'subcutaneous tissue', 'hypodermis' or 'panniculus'. Subcutis mainly consists of fat cells (adipocytes), nerves and blood vessels. The fat cells are organised into lobules, which are separated by structures called 'septae', which contain nerves, larger blood vessels, fibrous tissue and fibroblasts. Fibrous septae may form dimples in the skin (cellulite).

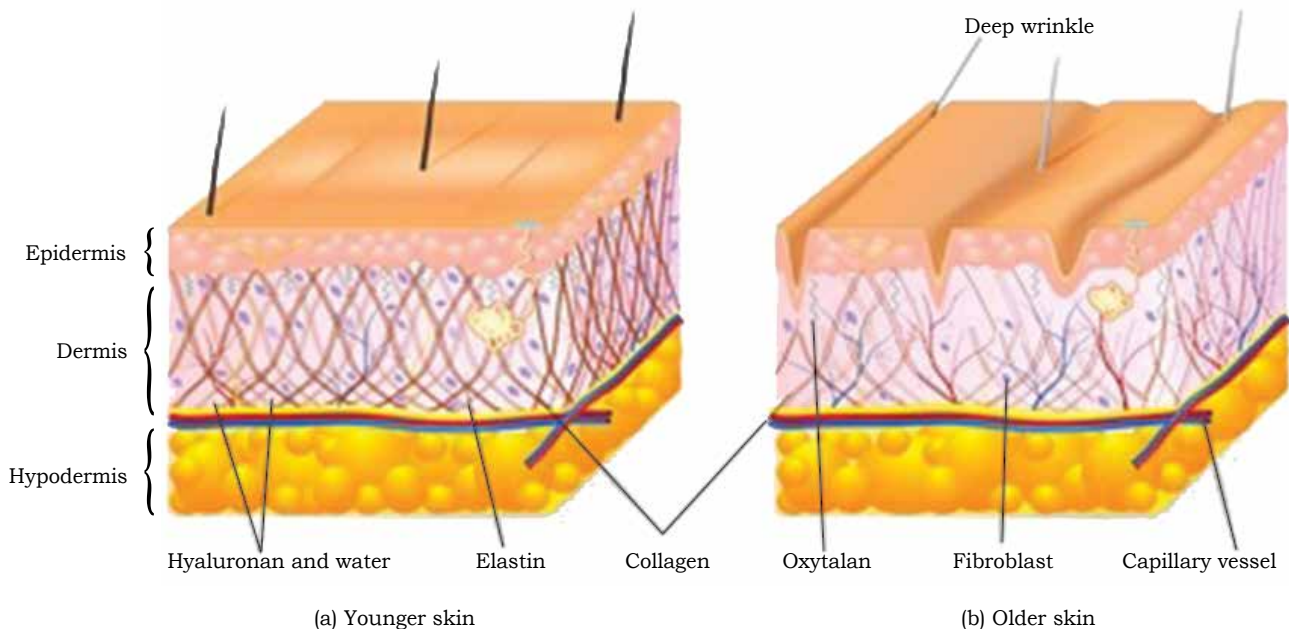


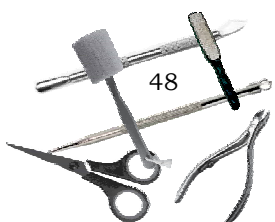
Fig. 2.6: Collagen fibre in younger and older skin

Functions of the skin

Skin is the largest organ of the body. It performs key functions, resulting from multiple chemical and physical reactions taking place within it. The basic functions of the skin are as follows.

Protection

Skin protects the body from injury, heat, radiation, chemicals and microorganisms. Due to constant shedding of 'stratum corneum', it acts as a mechanical barrier and does not allow organisms to stay or penetrate



into the skin. 'Melanin' produced by melanocytes present in the basal layer of the epidermis protects the body from ultraviolet radiation.

Thermo regulation

The skin also serves as a temperature regulator, enabling the body to adapt to different temperatures and atmospheric conditions by regulating moisture loss. This is done by controlling the secretion of sweat by sweat glands followed by evaporation of sweat from the surface of the skin.

Hormone synthesis

An active form of vitamin D is synthesised in the skin in the presence of sunlight.

Excretion

Through the secretion of sweat and sebum, the skin performs excretory function, eliminating a number of harmful substances resulting from metabolic activities of the intestine and liver.

Immunological role

The skin plays immunological role too as the langerhans cells pick antigens from the skin and carry them to the lymph nodes.

Sensory function

The skin has an intricate network of fine nerve terminals between epidermal cells and specialised nerve endings in the dermis and around cutaneous appendages. These nerve endings carry the sensation of touch, pain, temperature, wetness and itchiness.

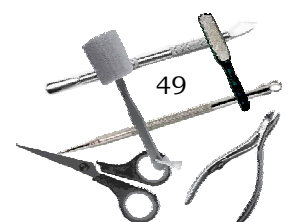
Practical Exercises

Activity 1

Group discussion on the basic knowledge that a Beauty Therapist must have as regards to the anatomy of skin.

Material required: notebook and pen

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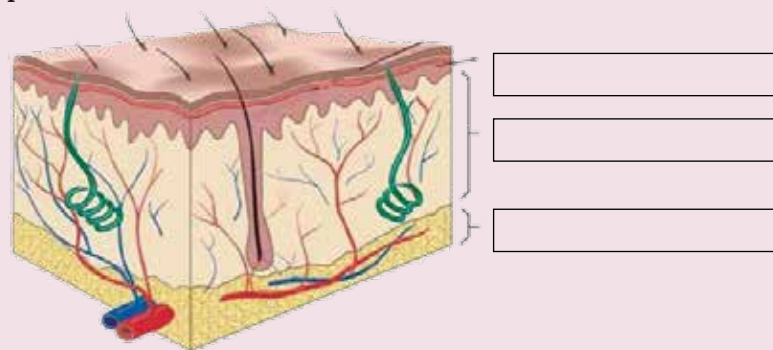
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Procedure

- The class is divided into groups, each having 3–4 members.
- One student will lead each group and ask one's respective group to discuss the basic knowledge required for a Beauty Therapist as regards to the anatomy of skin.
- The group leaders will present the discussion points of their respective groups before the class.
- Other students will note down the important points in their notebooks.

Activity 2

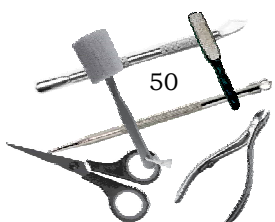
The anatomical structure of the skin is given below. Label the parts of the skin.



Check Your Progress

A. Multiple Choice Questions

1. Epidermis has _____ cells.
(a) keratinocytes
(b) melanocytes
(c) langerhans
(d) All of the above
2. Which of the following are the functions of the skin?
(a) Protection
(b) Excretion
(c) Both (a) and (b)
(d) None of the above
3. Epidermis is the _____ layer of the skin.
(a) lowermost
(b) outermost
(c) middle
(d) None of the above



4. _____ protects the skin from ultraviolet rays.
- Epidermis
 - Subcutis
 - Melanin
 - Langerhans

B. Fill in the Blanks

- The uppermost layer of the skin is _____.
- Dermis consists of _____ and elastin fibre.
- Melanocytes produce a black-coloured pigment called _____.
- Langerhans are the _____ cells found in the epidermis.
- Dermis is the _____ connective tissue or supportive layer of the skin.

C. Subjective Questions

- Name the three layers of the skin.
- List five functions of the skin.

What have you learnt?

After completing this Session, are you able to:

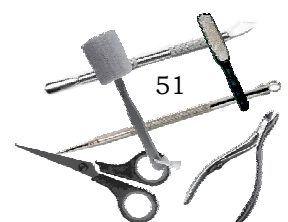
- explain the structure and functions of epidermis, dermis and subcutis.
- state the functions of the skin.
- name the cells found in the skin.

SESSION 2: TYPES OF SKIN AND SKINCARE

Skin analysis is carried out to understand the type and condition of the skin, and suggest suitable treatment to a client. The analysis must be carried out keeping in mind the age and general health of the client.

Basic skin types

A Beauty Therapist needs to have knowledge about the basic skin types before suggesting a treatment to the client. There are four basic skin types — normal, dry, oily and combination skin. Many internal and



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external factors determine the condition of the skin, such as climate, pollution, medication, stress and hereditary factors.

Normal skin

'Normal' skin is balanced. It is neither too dry nor too oily. The overall sebum and moisture content in such a skin is balanced but the T-zone (forehead, chin and nose) may be slightly oily. It is the rarest skin type. Therefore, it is important to take care of one's skin and keep oneself hydrated always.

How to identify

- Normal skin is healthy, soft and has a translucent glow.
- It does not have any mark or blemish.
- It has fine pores.
- There is adequate blood circulation in such a skin.
- Such a skin is not prone to sensitivity.
- The pH of such a skin is 5.5–5.8.

Dry skin

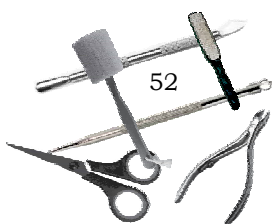
Dry skin produces less sebum than normal skin. As a result, the skin lacks lipids required to retain moisture and builds a protective shield against external influences. Dry skin is because of lack of lubrication from the sebaceous glands.

How to identify

- Dry skin can feel tight and rough, and looks dull.
- Such a skin has fine lines near the eyes and mouth. Elderly women having dry skin have prominent wrinkles and facial lines.
- It slowly loses elasticity with age.
- It is sensitive to irritation, rashes and infections.
- It is itchy if not moisturised regularly.
- The soles of the feet of people having dry skin develop cracks.

Oily skin

Oily skin is the result of clogging of sebaceous glands, causing sluggish blood circulation. Such a skin has



increased sebum production as compared to normal skin. Many factors lead to the over production of sebum, and hence, oily skin. They are — genetics, hormonal changes, medication, stress and use of certain make-up products.

How to identify

- Oily skin is thicker and coarser as compared to other skin types.
- It is characterised by a glossy shine.
- There are visible pores.
- Oily skin, usually, has pimples, blackheads and whiteheads.
- The skin is also prone to acne.
- Such skin is, generally, found around the nose and chin.

Combination skin

This type of skin is common. The skin type varies in the T-zone and cheeks. An oily T-Zone and dry cheeks indicate combination skin.

How to identify

- It is characterised by an oily T-zone.
- The skin has large pores in the T-zone.

Other skin types**Allergic and sensitive skin**

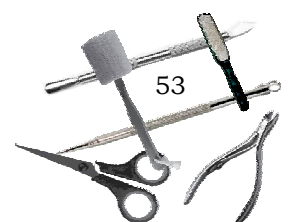
Such skin is sensitive to cold, heat, wind and rain. It becomes allergic and sensitive because of broken capillaries, and results in rashes or irritation through strong perspiration.

Matured Skin

It is somewhat similar to dry skin in appearance. It appears parched, saggy and dehydrated. The skin has deep lines.

How to perform skin analysis?

The following steps must be followed to perform skin analysis.



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- Step 1: Inform the client about the steps to be performed as part of skin analysis.
- Step 2: Cover the client's eyes with cool and wet cotton pads.
- Step 3: Now, look at the client's skin on the face and neck, using a magnifying glass in order to determine the skin type, skin conditions and the course of treatment.
- Step 4: Slightly stretch small section of the skin using middle and index fingers.
- Step 5: Cleanse the skin by following the recommended procedure.

Skincare techniques

There are three important skincare techniques — cleansing, application of toners and skin fresheners, and moisturising.

Cleansing

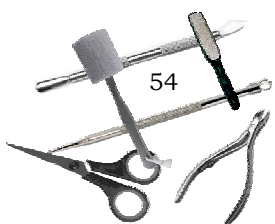
Cleansing is a common beauty treatment offered by most beauty salons. It is done to remove impurities accumulated in the skin pores. Cleansing lotion, gel or milk can be used for deep cleansing. Cleansing cream is used for cleansing and removing make-up. The cream melts as soon as it comes in contact with the skin, thus, allowing it to penetrate into the pores for deep cleansing. The cream also prevents the occurrence of blackheads.

Application of toners and skin fresheners

Toners are applied to refresh and cool the skin, and also remove traces of grease on the skin. Fresheners provide a soothing effect to the skin. Toners and fresheners are used as finishing agents for cleansing. These also make the skin soft and healthy.

Moisturising

Moisturisers are used to keep the skin soft and supple. These are made up of Normalising Moisturising Factor (NMF) ingredients. Moisturisers delay wrinkle formation.



Aging of the skin, facial muscles and muscle tone

Aging is a natural process, in which major body parts and systems get affected over time. Aging is of two types — internal and external. Internal aging is caused by the genes one inherits, for example natural skin aging. External aging is caused by environmental factors, such as pollution, smoking, alcohol consumption, sun exposure, etc., for example actual premature skin aging. The early signs of aging start appearing around 28–30 years but they vary from person-to-person. Let us study about the natural aging process.



Fig. 2.7 (a-c): Aging process of the skin, facial muscles and muscle tone

Skin cells

The formation of skin cells takes place in the bottom of the epidermis. Gradually, the cells move to the surface, where they die. In this way, dead cells are continually shed away from the skin. In old age, this process slows down and dead cells start forming a layer instead of shedding. This, in turn, slows down the process of skin regeneration. Dryness increases, which leads to the formation of fine lines, wrinkles and sagging of the skin.

Age spots

These are caused by prolonged exposure to sunlight and can be brown, black or gray in colour. Aging leads to increase in melanin, which causes skin pigmentation, leading to age spots.



Fig. 2.8: An age spot on the skin



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Bruising of the skin

The skin consists of three layers — epidermis, dermis and hypodermis or subcutis, which get thinner with age. The blood vessels, therefore, are prone to injury as they lose insulation and protection provided by the skin.

Formation of wrinkles

Aging leads to decrease in the production of skin proteins—collagen and elastin, which are essential for younger and healthy skin. Collagen provides firmness and strength, while elastin provides flexibility and resilience to the skin. The reduced production of proteins leads to sagging of the skin and wrinkle formation. However, beauty therapies, such as red light therapy, LED, high frequency, etc., help activate collagen and elastin production.

Dry skin

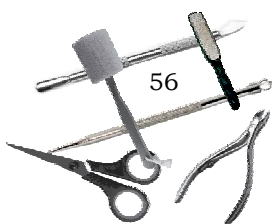
The skin gets dryer with age. As the number of oil producing glands decreases, there is a loss of fat and moisture, resulting in thinning of the skin. Even the skin type changes from oily to normal to dry. Besides, soaps, hot or cold temperatures, and use of some beauty products may further make the skin dryer.

Shrinking of muscles

Muscles also age and lose their tone with time. Facial skin and skin at the neck are attached to muscles. The shrinking of muscles makes signs of aging more apparent and the entire face starts to sag with age.

Bone loss

Our face is supported by various bones, such as brow bone, nose, jawline and chin. With age, the skins under the eyes, around the nose, mouth and cheeks sag, and the jawline becomes less distinct due to bone loss. Many go for filler and botox treatments in order to get a younger looking face and skin. But these treatments are expensive and done only by specialists.



Face masks and their effect on the skin

Face masks are beneficial in removing impurities, exfoliating, hydrating, soothing and toning the skin. There is an appropriate mask for every skin type.

Need for face mask

Face masks penetrate deep into the skin — to areas where a moisturiser fails to reach. Masks rejuvenate the skin by moisturising, detoxifying and replenishing it. A face mask must always be chosen according to the client's skin type, such as hydrating masks for dry skin, soothing and calming mask for sensitive skin, cleansing mask for oily skin, natural mask to nourish dull skin, and so on.

Types of face mask

A particular mask is not suitable for all skin type. Everyone has a unique skin type and each mask has its own set of properties. As mentioned above, the Beauty Therapist must select a mask keeping in view the client's skin type. Face masks are mainly of the following types.

Clay mask

The main ingredient of such a mask is natural clay, which has a deep cleansing effect on the skin. The mask draws the impurities on the surface of the skin while drying. It unclogs the pores and tightens the skin. It is best for people with normal to oily skin as it absorbs excess oil without stripping the skin of natural oils.



Fig. 2.10: Clay mask

Peel-off mask

It, generally, comes in gel, plastic or paraffin sub-types. Such a mask does not absorb as much oil and dirt as clay mask. Peel-off mask is mainly used for tightening the skin and promoting blood circulation. It works best for mature and dry skin as it hydrates and nourishes the skin.



Fig. 2.11: Peel-off mask

Cream mask

It is ideal for people with normal to dry skin as it rejuvenates the skin by moisturising it. Cream mask has emollient or softening properties that make the skin soft.



Fig. 2.12: Cream mask

Thermal mask

Such a mask when applied to the face, gradually, warms the surface tissue and opens the pores, thereby, allowing the skin to breathe. It works best for those with enlarged and congested pores as it cleans the pores from deep within.



Fig. 2.13: Thermal mask

Warm oil mask

It contains beneficial oils, such as almond oil, olive oil, vitamin oil, etc., in equal parts. Therefore, it is best for people having dry or mature skin as it makes the skin soft and supple, and imparts a healthy glow to it by promoting blood circulation.



Fig. 2.14: Warm oil mask

Natural mask

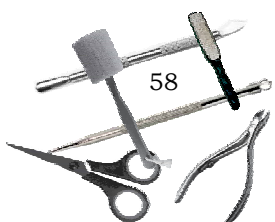
It is based on the rejuvenating properties of plants, herbs and fruits like cucumber, papaya and oatmeal, and is good for every skin type. Natural mask moisturises and revitalises normal to dry skin, and provides nourishment derived from natural ingredients to the skin.



Fig. 2.15: Natural mask

Face mask: Points to remember

- Do not apply face mask more than three times a week. Apply it on alternate days.
- Always cleanse the skin before applying the face mask as it is important to remove the impurities that might seep deeper into the skin, if not cleansed.



- The mask must not be left on the face for more than 20 minutes.
- Apply the mask evenly, with clean fingers or a mask brush.
- If the skin is inflamed or breaking out, applying mask in downward-outward motion will immediately reduce redness. For dull and dry skin, apply the mask in upward movement in order to increase blood circulation.
- Time the mask according to the manufacturer's instructions on the product's package.
- If the mask does not have exfoliating properties, scrub the skin gently before applying the mask. This allows the mask to penetrate into the skin. It is difficult to apply the mask, if there are dead skin cells on the face. Therefore, it is important that they are removed from the skin after cleansing.
- Some masks are removed by rinsing with water, while others are removed by wiping gently with a damp and warm cotton pad.
- After the mask is removed, moisturise the skin while it is still damp to lock in the hydration.

Procedure of face mask application

The general guidelines that need to be followed while applying face mask are as follows.

- Make the client wear a head band to prevent hair coming in the way. Tuck a facial tissue under the edge to prevent the hair from getting soiled.
- Prepare mask as per the manufacturer's instructions on its package.
- Cleanse the skin to remove all impurities, excess oil and make-up.
- Apply the mask methodically with a brush, covering the face and neck evenly. Ensure that the mask is applied up to the hairline to the base of the neck. Avoid the area around the eyes and mouth.



Fig. 2.16: Removal of face mask

- Apply wet and cool eye pads over the eyes.
- Time the mask from this point and leave it to rest for 10 to 20 minutes.
- After the time is over, discard the eye pads and use a clean and damp sponge to soften the dried mask.
- Wipe the mask with firm upward finger movements.
- After it is removed, tone and blot the skin, and apply a moisturiser.

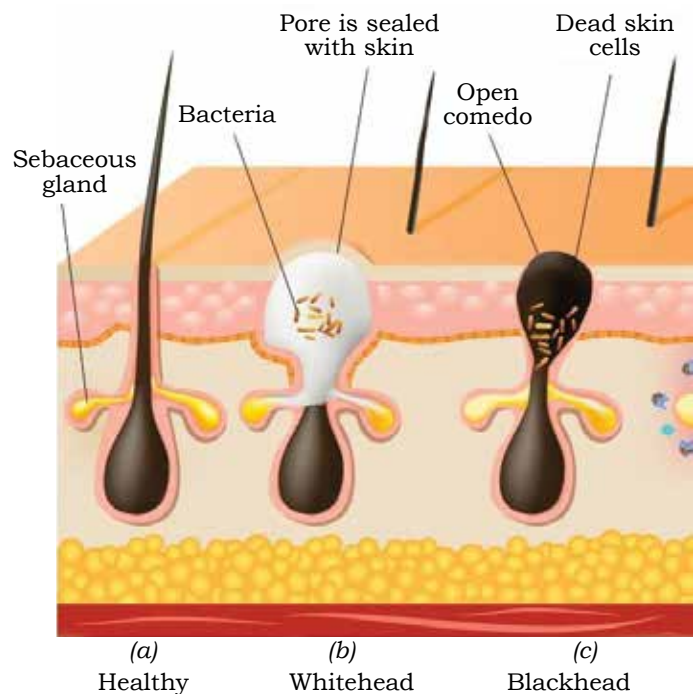


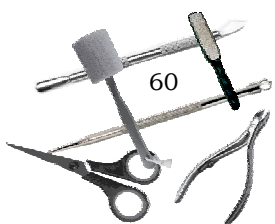
Fig. 2.17 (a-c): Skin impurities causing blackheads and whiteheads



Fig. 2.18 (a): Blackhead

Blackhead removal

Blackheads are a type of mild acne, which get clogged with dirt, oil and sebum. The melanin further oxidises with these impurities, causing the surface to appear dark or even black. They can appear on the face, neck, shoulders or even back. The main reasons of blackheads are dead skin cells not shedding naturally, changes in the hormone level, medication, acne-causing bacteria, excess oil production in the skin, etc.



Whitehead removal

Whiteheads develop when dead skin cells, sebum and dirt clog the skin pores. Unlike blackheads, which can be pushed out, whiteheads are locked within the pores due to the presence of a thin layer of skin. This makes the treatment of whiteheads slightly difficult than blackheads. Whiteheads have closed ends, so these are difficult to be removed.



Fig. 2.18 (b): Whitehead

Material used to remove blackheads and whiteheads

Round loop extractor

It is a metal loop, which slides in the pores and sweeps out the dirt without damaging or irritating the pores. It is an inexpensive and effective tool. It can be used in combination with other face cleaning methods like steaming as in case of sensitive skin. After using this tool, use a toner in order to close the unclogged pores.



Fig. 2.19: Round loop extractor

Blackhead suction remover

It is a mini vacuum that sucks impurities out of the pores using air pressure. It is a quick and painless method of removing blackheads and whiteheads.

Scrub

Oatmeal scrub is beneficial in case of whiteheads. Gentle circular motions help clean the clogged pores.

Face steamer

Put the client's face close to the steamer as recommended. Small amount of water is put into the steamer, which converts into steam. The steam helps unclog the pores, thereby, helping in the extraction of blackheads and whiteheads. Be careful while working with this machine. After steaming is over, apply toner near the clean pores.



Fig. 2.20: Skin warming using a steamer

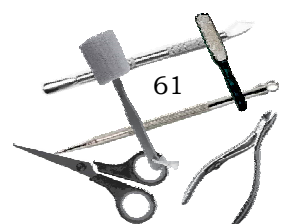




Fig. 2.21: Skin warming using hot water steam



Fig. 2.22: Skin warming using a wet towel

Skin warming or facial steaming

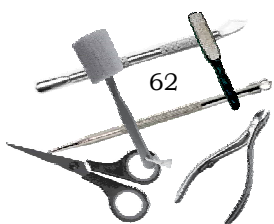
Facial steaming is also known as 'skin warming'. Steaming has multiple benefits on the skin as natural oils flow freely into the skin, thereby, preventing the pores from getting clogged.

Benefits

- The skin becomes more receptive to skin treatments, such as application of masks, serums, etc., after steaming.
- Steaming increases blood circulation in the face.
- It helps remove toxins from the skin through perspiration.
- It softens the dirt clogged inside the pores for easy removal.
- Steaming helps in relaxing as the skin becomes free from dirt and impurities.

Points to remember

- Steam the client's skin before applying the mask as it helps open the pores and enables deep cleansing.
- Cleansing and exfoliating must be followed by steaming.
- There are two common and simple ways of skin warming — hot towels and steamers.
- The first method involves dipping a clean towel into hot water and putting it on the client's face after squeezing it lightly and cooling it. The second option is to bring the water to boil, and then, turn off the heat. Now, with a clean towel draped over the head, place the face above the pot containing the hot water to absorb the steam.
- Both the methods can be used for a minute or two. Too much steaming can cause redness.
- Keep the client's skin type in mind before giving steam.
- The other method is using face steamers available in a salon.



Duties of a Skincare Therapist

A Skincare Therapist cleanses and beautifies the face and body to enhance a person's overall appearance. Some of the duties performed by the therapist are as follows:

- perform facial clean-up and full-body massage to improve the health and appearance of the client's skin
- clean the work area and disinfect the equipment before starting the skin treatment
- analyse the client's skin type and condition
- discuss the available treatments with the client and decide the product that will help improve the person's skin quality
- remove all unwanted hair on the face by waxing or threading
- clean the skin before applying make-up
- recommend skincare products like cleansers, lotions, creams, face masks, etc., to the client
- teach the client to apply make-up and take care of the skin
- refer the client to a dermatologist for serious skin problems, if any

Practical Exercises

Activity 1

Identification of skin type.

Material required: notebook and pen

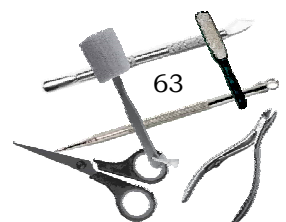
Procedure

- The class is divided into groups, each having 3–4 students.
- One student will lead each group.
- Students in each group are asked to identify each other's skin types — normal, dry, oily, etc. They will also look for skin allergies, if any.
- Each group leader will present the observations made by their respective groups before the class.
- The other students will note down the important points in their notebooks.

Activity 2

Practical sessions on cleansing, moisturising and face mask application.

NOTES



NOTES

Material required: cleansing milk or lotion, face mask, brush, bowl, moisturiser, head band, apron, towel, water, eye pads, cotton and sponge pads

Procedure

- The class is divided into groups, each having 3–4 members.
- The students in each group will practise cleansing, moisturising and face mask application as per the procedure given in this Session.
- The teacher will evaluate the performance of the students and give them feedback.

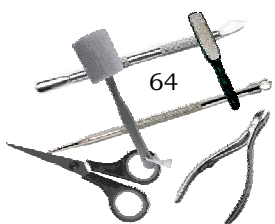
Check Your Progress

A. Fill in the Blanks

1. Cleansing is performed to remove _____ accumulated in the skin pores.
2. Creams are also used to prevent the occurrence of _____.
3. Moisturisers delay the formation of _____.
4. The pH of _____ skin ranges from 5.5 to 5.8.
5. Dry skin is because of lack of lubrication from the _____ gland.
6. Oily skin has a tendency of developing open pores, _____ and blackheads.
7. A _____ mask is used for tightening the skin and promoting blood circulation.

B. Subjective Questions

1. Explain the step-by-step procedure for performing skin analysis.
2. Explain the following skincare techniques:
 - (a) Cleansing
 - (b) Moisturising
3. What is aging?
4. What causes wrinkles?
5. Name and describe any two type of skin masks.
6. What is a blackhead?



What have you learnt?

After completing this Session, are you able to:

- state the importance of skin analysis.
- explain the steps for conducting a skin analysis.
- describe the common skincare techniques.
- identify different skin types.

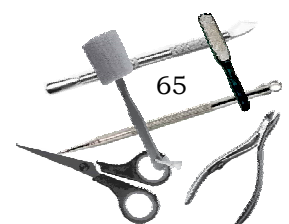
SESSION 3: ACTIONS OF THE FACIAL, NECK AND SHOULDER MUSCLES

'Muscle' is a tissue that contracts and relaxes in order to move a particular part of the body. Therefore, the main function of muscles is to aid the movement of various body parts and maintain posture. Muscular movements help passage of blood, lymph and food in the digestive system. The three types of muscles found in the human body are 'cardiac', 'skeletal' and 'smooth' muscles. Cardiac muscles perform involuntary muscular movements of the heart, aiding it to pump blood throughout the body. Skeletal muscles are attached to the bones and skin. They perform voluntary muscular movements of the bones, aiding physical movements of the body, such as walking, running and writing. Smooth muscles perform involuntary muscular movements of internal organs, aiding functions, such as digestion, urination and breathing.

A Beauty Therapist must be aware of the location and functions of various voluntary muscles of the face, neck, hands and legs. In this Session, we shall study about some of the voluntary muscles of the face, neck, hands and arms so that the students are able to provide massage correctly. We will also study about the effect of voluntary movements of the following:

- Facial muscle
- Eyebrow muscle
- Muscles of the nose
- Muscles of the mouth
- Muscles of the ear
- Muscles of mastication
- Muscles of the neck

NOTES



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Facial muscle

The top of the skull is covered by 'epicranius' or 'occipitofrontalis' muscle. This muscle has two parts — occipitals (rear part) and frontalis (front part). The voluntary movement of frontalis helps in the movement of eyebrows and skull. Occipitals and frontalis are connected by the tendon.

Eyebrow muscle

Orbicularis oculi is a facial muscle that surrounds the margin of the eye socket. It helps in blinking.

Muscles of the nose

Procerus

This muscle extends from the bridge of the nose to the top between the eyebrows. Wrinkles are created across the bridge of the nose by depressing the eyebrows.

Nasalis

Nasalis muscle of the nose compresses the nose, causing wrinkles. It is responsible for the flaring of nostrils when underwater, thereby, preventing water from entering the nose.

Muscles of the mouth

Quadratus labii superioris

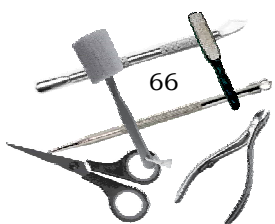
This muscle surrounds the upper part of the lip and helps in opening the mouth by lifting the upper lip. It is the reason behind a person's facial expressions.

Quadratus labii inferioris

This muscle surrounds the lower part of the lip. It also enables facial expressions.

Buccinator

It is a thin flat muscle between the upper and lower jaws. The shape of the cheek is attributed to this muscle. It puffs out the cheeks when blowing and keeps food in the mouth while chewing.



Caninus

This muscle is located under the Quadratus labii superioris. It raises the angle of the mouth at the corner.

Mentalis

This muscle is situated on the tip of the chin. The movement of the lower lip is controlled by this muscle.

Orbicularis oris

Flat band around the lower and upper lip is formed because of the presence of this muscle.

Zygomaticus

This muscle extends from the zygomatic bone and continues into the orbicular oris to the angle of the mouth. It elevates the lip while laughing.

Triangular

This muscle extends along the side of the chin. The corner of the chin is pulled down by this muscle.

Muscles of the ear

Auricularis superior

This muscle is present above the ear.

Auricularis posterior

This muscle is present behind the ear.

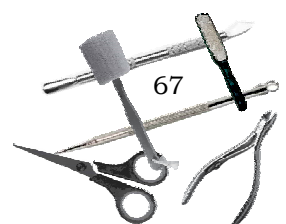
Auricularis anterior

This muscle is present in front of the ear.

Muscles of mastication

Temporalis and mastication

This muscle coordinates the opening and closing of the mouth. It is also called 'chewing muscle'.



Muscles of the neck

Platysma

It is located in front of the throat. It pulls down the lower jaw and angles of the mouth. The expression of sadness is because of this muscle.

Sterno-cleido-mastoid

It is the largest cervical muscle and extends on either side of the neck. The movement of the head is because of this muscle.

Latissimus dorsi

This muscle covers the upper and middle region of the back and back of the neck. It aids in rotating the shoulder blade and controlling the swinging movement of the arm.

Pectoralis major and minor

These muscles cover the front of the chest. They help in arm movement.

Common body movements

Flexion

- Flexion is the movement to decrease the angle between parts.
- Flexing one's muscles, usually, results in bringing the body parts close together. For example, forward flexion brings the shoulder girdle and pelvis close together.

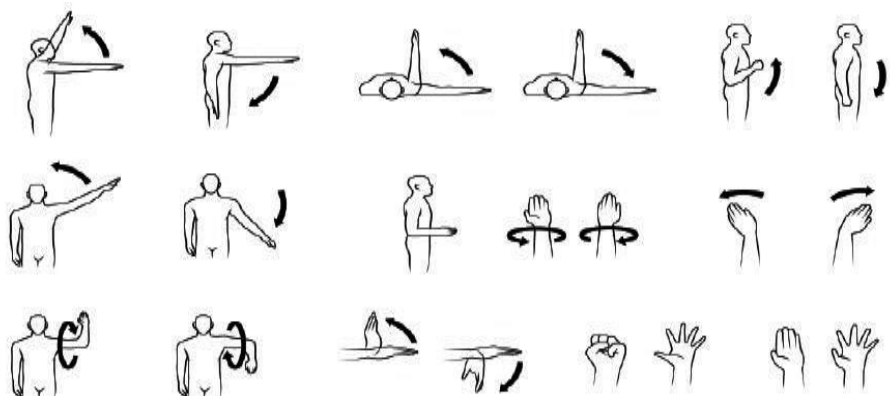
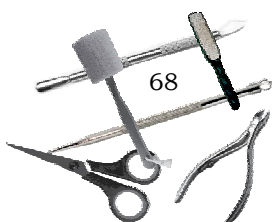


Fig. 2.23: Common body movements



Adduction

Adduction is a movement that brings a limb — arm or leg — closer to the sagittal plane of the body.

Abduction

Abduction is opposite to adduction, i.e., taking a limb away from the sagittal plane.

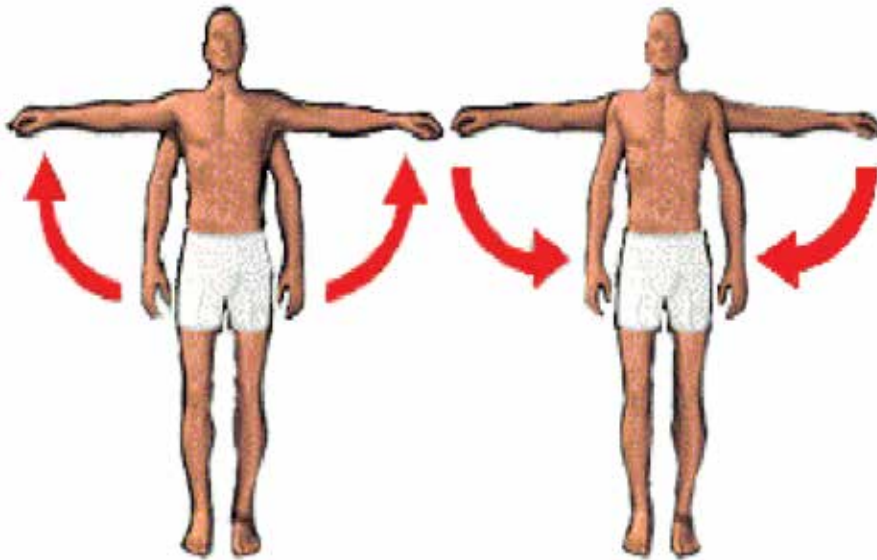


Fig. 2.24(a): Abduction

Fig. 2.24(b): Adduction

Prone position

It refers to lying with the front or face downwards.

Supine

It refers to lying with the front or face upwards.

Dorsi flexion

It helps turning of the foot or toe upwards.

Plantar flexion

This enables turning the foot downwards.



Fig. 2.25: Plantar flexion

Practical Exercise

Activity

Identification of muscles and their location.

Material required: notebook and pen

Procedure

Match the muscles with their location.

1.	Nasalis	(a)	Ear
2.	Caninus	(b)	Chin
3.	Triangular	(c)	Mouth
4.	Platysma	(d)	Nose
5.	Auricularis superior	(e)	Throat

Check Your Progress

A. Fill in the Blanks

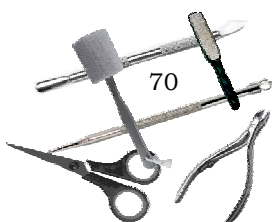
1. Epicranius muscle has two parts, namely _____ and frontalis.
2. The voluntary movement of _____ help in the movement of eyebrows and skull.
3. The movement of the lower lip is controlled by _____ muscle.

B. Match the Columns

A	B
1. Buccinator	(a) Situated on the tip of chin
2. Mentalis	(b) Muscle of the nose
3. Procerus	(c) Lying with the face upwards
4. Mouth muscles	(d) Gives shape to cheek
5. Supine	(e) Quadratus labii inferiors

C. Multiple Choice Questions

1. Which of the following is the muscle of the neck?
 - (a) Latissimus dorsi
 - (b) Temporalis
 - (c) Caninus
 - (d) Supine



2. Which of the following muscle is present behind the ear?
- (a) Auricularis superior
 - (b) Auricularis posterior
 - (c) Auricularis anterior
 - (d) None of the above

What have you learnt?

After completing this Session, are you able to:

- differentiate between the body movements controlled by various muscles.

SESSION 4: BLEACHING

We have fine hair all over the body, such as stomach, back, etc. Unwanted hair must be removed by suitable hair removal procedures. The common hair removal procedures are — bleaching, threading and waxing. However, bleaching does not remove hair like threading and waxing. It only destroys the colouring pigment 'melanin'. When a light ray passes through them, the hair appear pale golden. A number of chemicals, such as Hydrogen peroxide (H_2O_2) and ammonia are used as bleaching agents.

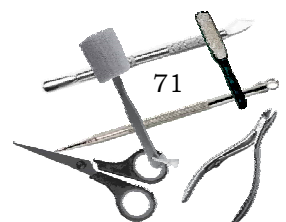


Fig. 2.26: Bleaching agent

Patch test

As chemicals are used in bleaching, it is always recommended to perform the treatment only after conducting a 'patch test'. This test is conducted by following these steps.

- Step 1: Select a suitable bleach based on the requirement of a client and the person's skin type.
- Step 2: Take a teaspoon of bleaching cream.
- Step 3: Add two to three grains of ammonia to the bleaching cream and mix well.
- Step 4: Apply bleach on a small patch of the skin behind the ear.
- Step 5: Wait for 10–15 minutes and observe for allergy or redness on the skin.



NOTES

Step 6: If there is an allergy, then avoid using the bleach. Natural bleach can be used in this case.

Step 7: If no allergy is observed, then one may proceed with the procedure.

Bleaching

Material required

- Head band
- Medium and small size towel
- Cleansing milk
- Eye pads (tea bags, cucumber slices)
- Cotton pieces (2×2")
- Plastic, glass or ceramic bowl or plate
- Spatula
- Bleaching cream
- Ammonia
- Moisturiser
- Lacto calamine
- Ice cubes
- Chilled water

Procedure

Step 1: Collect the required information, such as the age of the client, the last time the person underwent bleaching procedure, etc.

Step 2: Seat the client comfortably.

Step 3: Identify the client's skin type and condition.

Step 4: Conduct a patch test to check for infections or allergies.

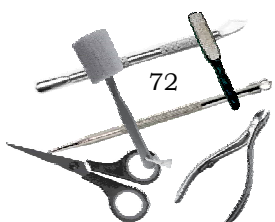
Step 5: Wrap a head band above the client's forehead and cover the clothes with a large towel, apron or disposable sheet.

Step 6: Apply and spread cleansing milk all over the client's face and neck.

Step 7: Massage the neck and face in upward and outward direction with a moist cotton pad.

Step 8: Prepare the paste required for bleaching. Take 2–3 spatula of bleaching cream and 2–3 granules of ammonia, and mix well.

Step 9: Apply the paste to the upper lip first, and then, to the rest of the face.



- Step 10: Place eye pads to protect the eyes from watering.
- Step 11: Now, wait for 5–7 minutes for the bleach to process.
- Step 12: Remove little bleach from few spots and observe or the colour of the hair.
- Step 13: If the hair is not bleached as desired, wait for another five minutes.
- Step 14: Again check for the effectiveness of the bleach.
- Step 15: Remove the bleach with a spatula from all over the face and neck.
- Step 16: Rub an ice cube all over the face and neck for relaxation.
- Step 17: Apply moisturiser, sunscreen lotion or oil on the face.
- Step 18: Lay a thin layer of lacto calamine in order to give a soothing effect to the skin.

Advantages

- It gives instant result (within 10 minutes).
- It lightens the skin tone.
- It helps in removing suntan.

Disadvantages

- Prolonged use of chemicals may have harmful effects on the skin and hair.
- The client requires post-bleach care.

Practical Exercises

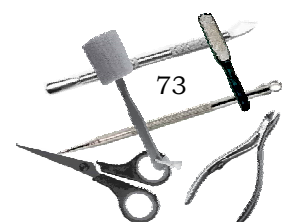
Activity 1

Role-play on conducting patch test.

Material required: bleaching cream, ammonia granules, mixing bowl and brush

Procedure

- Step 1: Select bleach based on a person's skin type and requirement.
- Step 2: Apply bleach on a small patch of the skin behind the ear.
- Step 3: Wait for 10–15 minutes and observe for allergy or redness on the skin.



NOTES

Step 4: If there is an allergy, then avoid using chemical bleach. Natural bleach can be used in such cases.

Step 5: If no allergy is observed, then you may proceed with the bleaching procedure.

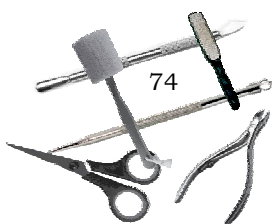
Activity 2

Role-play on bleaching.

Material required: head band, towel, cleansing milk, eye pads (tea bags or cucumber slices), cotton pieces (2×2"), plastic glass or ceramic bowl, spatula, bleaching cream, ammonia grains, moisturiser, lacto calamine, ice cubes and chilled water

Procedure

- Step 1: Collect required information like the age of a client, last time the person had underwent bleaching procedure, etc.
- Step 2: Offer a comfortable chair to the client.
- Step 3: Identify the client's skin type and condition.
- Step 4: Conduct a patch test to check for infections or allergies.
- Step 5: Wrap a head band above the client's forehead and cover the clothes with a large towel or apron.
- Step 6: Apply and spread cleansing milk all over the client's face and neck.
- Step 7: Prepare the bleaching paste. Follow these steps.
 - Take 2–3 spatula of bleaching cream.
 - Add 2–3 granules of ammonia to it and mix well.
- Step 8: Apply the paste to the upper lip first, and then, to the rest of the face.
- Step 9: Place eye pads on the eyes to protect them from watering.
- Step 10: Wait for 5–7 minutes for the bleach to process.
- Step 11: Remove little bleach from few spots and observe for the colour of the hair.
- Step 12: If the hair is not bleached as desired, then wait for another five minutes.
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- Step 16: Apply moisturiser, sunscreen lotion or oil on the face.
- Step 17: Lay a thin layer of lacto calamine on the face in order to give a soothing effect to the skin.



Check Your Progress

A. Fill in the Blanks

1. Chemicals, such as H_2O_2 and ammonia are used as _____ agents.
2. It is recommended that a _____ test is conducted before starting the actual bleaching process.
3. Eye pads are required to protect a person's eyes from _____.
4. Bleaching paste is prepared by mixing bleaching cream with _____ grains.

B. Subjective Questions

1. Name two bleaching agents.
2. Write down the procedure for conducting a patch test.
3. What are the advantages of bleaching?

What have you learnt?

After completing this Session, are you able to:

- carry out a patch test.
- perform bleaching procedure.

NOTES

